Title (en)

APPARATUS AND METHOD FOR ADAPTIVE 3D ARTIFACT REDUCING FOR ENCODED IMAGE SIGNAL

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ADAPTIVEN 3D-ARTEFAKTREDUZIERUNG FÜR EIN KODIERTES BILDSIGNAL

Title (fr)

APPAREIL ET PROCEDE DE REDUCTION D'ARTEFACT 3D ADAPTATIVE POUR SIGNAL D'IMAGE CODE

Publication

EP 1771818 A1 20070411 (EN)

Application

EP 05772108 A 20050729

Priority

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Abstract (en)

[origin: WO2006010276A1] An efficient and non-iterative 3D post processing method and system is proposed for mosquito noise reduction, block localization and correction in DCT block-based decoded images. The 3D post processing is based on a simple classification that segments a picture in multiple regions such as Edge, Near Edge, Flat, Near Flat and Texture regions. The proposed technique comprises also an efficient and shape adaptive local power estimation for equivalent additive noise and provides simple noise power weighting for each above cited region. Temporal filtering configurations using Minimum Noise Variance Criterion are proposed for reducing temporally varying coding artifacts. A Minimum Mean Square Error or Minimum Mean Square Error-like noise reduction with robust and effective shape adaptive windowing is utilized for smoothing mosquito and/or random noise for the whole image, particularly for Edge regions. The proposed technique comprises also signal domain histogram analysis based Block Localization and adaptive edge based Block artifact correction. Finally, is also proposed an optional adaptive detail enhancer which can enhances the luminance signal in eight directions differently.

IPC 8 full level

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CPC (source: EP US)

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